

The invention provides a biochemical sensor with probes uniformly caught in each section. The probes used for detecting a substance of interest are caught in advance on particles, and the particles are fixed in each of sections arranged in form of lattice using a chemical patterning method on the surface of a baseplate. In each section, the particles attached with probes caught on the surface are fixed in single layer and tightly packed. The quantity of the particles fixed on the baseplate is determined by using a light scattering from the particles or by labeling the particles in advance with fluorescent substance. Therefore, the number of probes caught in each section of individual biochemical sensor is determined so as to allow the substance of interest to be detected with high accuracy.